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April 21, 2003

RECEIVED

*Via Hand Delivery*

APR 21 2003

The Honorable Michael K. Powell  
Chairman  
Federal Communications Commission  
445 Twelfth Street, SW  
Washington, DC 20554

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

**RE:** Petition of Northrop Grumman Information Technology For Rulemaking To  
Amend Subpart R of Part 90 of the Commission's Rules for the Purpose of  
Allocating Additional Broadband Spectrum for Public Safety Entities

Dear Chairman Powell:

The events of September 11th taught some painful lessons about the need for improved communications among and between first responder groups. In particular, the events of that and subsequent days have underscored the need for more public safety radio spectrum, which would enable first responders to effectively perform their live-saving functions. Indeed, effective and interoperable public safety communications using the most advanced wireless technologies are more important than ever in the nation's homeland security effort and ongoing war against terrorism.

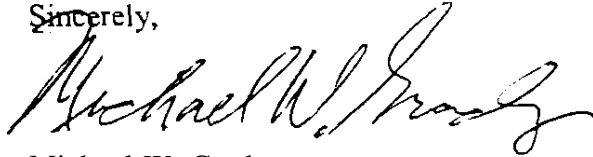
Given the circumstances, we have prepared and hereby submit the attached petition for rulemaking. **As** detailed in the petition, provision of an additional 10 MHz of public safety spectrum, preferably located in the 700 MHz Band, will permit deployment of advanced broadband wireless applications that are desperately needed by our nation's first responders. We urge the Commission to consider the relative merits and viability of particular spectrum bands to meet this need.

Meeting the critical requirements of the public safety community requires nothing less than establishment of a nationwide, IP-based, interoperable communications network that will support broadband services. We ask the Commission to grant this petition

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promptly and we look forward to working with you and your staff to undertake this important rulemaking effort.

Sincerely,



Michael W. Grady  
Vice President, Technology, Engineering and Quality  
and Sector Chief Technical Officer  
Northrop Grumman Information Technology

Attachment

cc: Commissioner Kathleen Q. Abernathy  
Commissioner Michael J. Copps  
Commissioner Kevin J. Martin  
Commissioner Jonathan S. Adelstein

Bryan Tramont, Senior Legal Advisor to Chairman Powell  
Jennifer Manner, Senior Counsel to Commissioner Abernathy  
Paul Margie, Legal Advisor to Commissioner Copps  
Sam Feder, Legal Advisor to Commissioner Martin  
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Peter Tenhula, Director Spectrum Policy Task Force  
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John Borkowski, Assistant Division Chief, Public Safety & Private Wireless Division

Marlene H. Dortch, Secretary, Federal Communications Commission

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, DC 20554**

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**In the Matter of:** )  
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Petition of Northrop Grumman )  
Information Technology For )  
Rulemaking To Amend Subpart R of )  
Part 90 of the Commission's Rules )  
for the Purpose of Allocating Additional )  
Broadband Spectrum for Public )  
Safety Services )

**APR 21 2003**

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

RM- \_\_\_\_\_

To: The Commission

**PETITION FOR RULEMAKING - - EXPEDITED TREATMENT REQUESTED**

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**April 21, 2003**

## **TABLE OF CONTENTS**

	<b><u>Page</u></b>
EXECUTIVE SUMMARY .....	<b>ii</b>
I. BACKGROUND .....	<b>2</b>
II. THE 24 MHZ CURRENTLY ALLOCATED FOR PUBLIC SAFETY ENTITIES IS INSUFFICIENT .....	<b>5</b>
A. The Pressing Need of First Responders for Advanced Broadband Services Requires Additional Public Safety Spectrum .....	<b>6</b>
B. Lack of Interoperability Remains a Serious Impediment to Emergency Response .....	<b>12</b>
III. THE 700 MHZ BAND IS THE IDEAL LOCATION FOR MEETING THIS CRITICAL PUBLIC SAFETY NEED .....	<b>14</b>
A. Public Safety Spectrum Should Be as Contiguous as Possible .....	<b>16</b>
B. An Allocation of Additional Public Safety Spectrum in the 700 MHz Band Will Create Efficiencies .....	<b>17</b>
IV. AN ADDITIONAL 10MHZ ALLOCATION WILL SERVE THE PUBLIC INTEREST .....	<b>18</b>
V. ANY ADDITIONAL PUBLIC SAFETY SPECTRUM IN THE 700 MHZ BAND MUST ENABLE USE OF NEXT GENERATION BROADBAND TECHNOLOGIES .....	<b>20</b>
VI. CONCLUSION .....	<b>22</b>

## **EXECUTIVE SUMMARY**

Northrop Grumman Information Technology (“NGIT”) hereby petitions the Federal Communications Commission (“Commission”) to expeditiously commence a rulemaking proceeding for the purpose of allocating additional broadband spectrum for public safety services. Specifically, NGIT urges the Commission to seek comment on the provision of an additional 10 MHz of spectrum, located below 3 GHz, preferably at 747-752 and 777-782 MHz or elsewhere in the 700 MHz Band, for use by our nation’s first responders.

This allocation would further the national effort to adequately meet the critical emergency response and homeland security needs of public safety entities post-September 11<sup>th</sup>; permit federal, state, and local government authorities to deploy advanced broadband wireless high-speed data applications; meet critical interoperability requirements; and serve the public interest. Moreover, any new allocation of public safety spectrum in the 700 MHz Band must enable use of advanced, “next generation” broadband technologies that are available today and which Congress may not have envisioned when it allocated public safety spectrum in 1997.

Although the Commission allocated 24 MHz of spectrum for public safety use in the 700 MHz Band in 1997, these allocations have already been set aside for other uses, and their channelization precludes the use of advanced broadband wireless applications. While the commercial world continues to move toward 3<sup>rd</sup> Generation broadband wireless technologies, the public safety/law

enforcement community is prevented from taking advantage of any updated applications because the present public safety spectrum allocation cannot be used to deploy advanced broadband services. The situation is especially hazardous to first responders given their paramount role in homeland security and the ongoing war on terror.

As a result, there is an overwhelming need for additional public safety spectrum, and the Commission should promptly launch a rulemaking proceeding to consider the relative merits and viability of particular spectrum bands to meet this need. Specifically, the allocation of an additional 10 MHz of spectrum in the 700 MHz Band or in other spectrum below 3 GHz, would permit homeland security and public safety entities to develop and use advanced broadband data technologies. Meeting the critical needs of first responders requires nothing less than establishment of a nationwide, IP-based, interoperable communications network. The Commission must create a long-term, strategic spectrum allocation plan that facilitates advanced broadband public safety and homeland security applications. NGIT urges the Commission to assist the public safety community by promptly undertaking this important effort.

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, DC 20554**

In the Matter of: )  
)  
Petition of Northrop Grumman )  
Information Technology For )  
Rulemaking To Amend Subpart R of )  
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Broadband Spectrum for Public )  
Safety Services )

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APR 21 2003

To: The Commission

**PETITION FOR RULEMAKING - - EXPEDITED TREATMENT REQUESTED**

Northrop Grumman Information Technology ("NGIT"),<sup>1/</sup> pursuant to Section 1.401 of the Commission's rules,<sup>2/</sup> hereby petitions the Federal Communications Commission ("Commission") to commence a rulemaking proceeding to amend Subpart R of Part 90 of its rules for the purpose of allocating additional broadband spectrum for public safety services.<sup>3/</sup> Specifically, NGIT

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<sup>1/</sup> Northrop Grumman Information Technology, a leading public safety systems integrator, is a sector of Northrop Grumman Corporation.

<sup>2/</sup> 47 C.F.R. § 1.401

<sup>3/</sup> As discussed **below**, completion of the requested rulemaking may result in either a new rule, amendment of an existing rule, repeal of an existing rule, or a combination of these alternatives, either within or outside the framework of the current Subpart R of Part 90 of the Commission's rules ("Regulations Governing the Licensing and Use of Frequencies in the 746-776 and 794-806 MHz Bands"). For this reason, we have not endeavored to set forth the text of a proposed rule at this time. *See* 47 C.F.R. § 1.401(c).

urges the Commission to expeditiously seek comment on the provision of an additional 10MHz of spectrum, located below 3 GHz and preferably in the 700 MHz Band, for new, advanced broadband applications needed by our nation's first responders.

As described below, this allocation would further the national effort to adequately meet the critical emergency response and homeland security needs of public safety entities post-September 11<sup>th</sup>; permit federal, state, and local government authorities to deploy advanced broadband wireless high-speed data applications; meet critical interoperability requirements; and serve the public interest. Moreover, any new allocation of public safety spectrum must enable use of next generation broadband technologies. In sum, the Commission must create a long-term, strategic spectrum allocation plan that facilitates advanced broadband public safety and homeland security applications.

## **I. BACKGROUND**

Congress and the Commission have long recognized the pressing need of public safety entities for quality, dedicated spectrum. In the 1997 Budget Act, Congress directed the Commission to reallocate 24 MHz of spectrum that would be recovered from TV channels 60-69 as a result of digital television migration for public safety services.<sup>4/</sup> The language of the statute defines in detail the services

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<sup>4/</sup> 1997 Budget Act of 1997, Pub. L. No. 105-33, § 3303, 111 Stat. 266 *et seq.* (1997) ("1997 Budget Act"), codified at 47 U.S.C. § 337. Subsection 3303(a) directs the Commission to reallocate on a national, regional, or market basis 24 MHz in television broadcast channels 60 through 69 to public safety and mandates that the remainder of the spectrum located in the channels 60 through 69 for commercial use.



for which Congress intended this spectrum to be used 5/ and required the Commission to establish service rules by September 30, 1998, in order to **begin** the process of license assignment for the spectrum. 6/ Moreover, the legislative history reflects that the relatively rapid licensing commencement date **was** added to the statute in light of the critical need for public safety spectrum in some markets. 7/

As a result of the congressional mandate, the Commission established rules for public safety use in the 764-776 and 794-806 MHz Bands. 8/ Within each of the four 6 MHz television channels, the Commission designated that one segment be reserved for narrowband communications and the other be reserved for wideband

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5/ 47 U.S.C. § 337(f)(1).

6/ 47 U.S.C. § 337(b).

7/ H.R. Rep. No. 149, 105th Cong., 1<sup>st</sup> Sess. 571 (1997).

8/ See The Development of Operational, Technical and Spectrum Requirements For Meeting Federal, State and Local Public Safety Agency Communication Requirements Through the Year 2010, *First Report & Order*, 14 FCC Rcd 152 (1998) ("*First Report & Order*"); The Development of Operational, Technical and Spectrum Requirements For Meeting Federal, State and Local Public Safety Agency Communication Requirements Through the Year 2010, *Second Memorandum Opinion & Order*, 15 FCC Rcd 16844 (2000) ("*Second MO&O*"). Among other things, the Commission's rules provide a structure to: (1) enable development of a national interoperability plan; (2) provide spectrum management and planning mechanisms necessary to develop multiple user public safety communications systems and local and regional interoperability systems that effectively incorporate all public safety service providers, (3) adopt licensing rules for eligibility, permissible use, and coordinated spectrum planning for the 700 MHz Band; and (4) adopt competitively neutral technical standards to efficiently achieve interoperability in designated spectrum. *First Report & Order*, 14 FCC Rcd at 156, ¶ 7.

communications. <sup>9/</sup> Specifically, the Commission designated 1,920 channels for narrowband use and **240** channels for wideband use. <sup>10/</sup>

Despite the congressional mandates and the Commission's best intentions, however, recent events associated with public safety response, including the September 11<sup>th</sup> terrorist attacks, demonstrate in a very tragic manner that public safety communications have not improved. Even though the Commission allocated new spectrum and designed the public safety communication requirements in **1998**, the broadcasters currently occupying this spectrum are not required to move from the spectrum until 2006 at the earliest. <sup>11/</sup> As a result, much of this sorely needed new spectrum is unusable in the most populous areas of the country, pending completion of the transition. <sup>12/</sup> In addition, this newly allocated spectrum is designed to address critical narrowband voice and data needs and will not support the use of advanced broadband wireless devices by public safety personnel in their day-to-day activities.

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<sup>9/</sup> *Id.* at 170, ¶ 33.

<sup>10/</sup> *Id.* at 176, ¶ 43

<sup>11/</sup> 47 U.S.C. § 309(j)(14).

<sup>12/</sup> *See, e.g.*, Comments of the Association of Public Safety Communications Officials International, Inc. ("APCO"), Spectrum Policy Task Force Report, ET Docket No. **02-135** (filed Jan. 27, 2003) ("APCO Comments - SPTF Report"); Comments of Motorola, Inc., Spectrum Policy Task Force Report, ET Docket No. 02-135 (filed Jan. 27, 2003) at 10 ("The 700 MHz spectrum remains inaccessible for public safety users in half of the major metropolitan markets due to the lingering presence of television incumbents, and the Commission has not established any definitive date when this spectrum will be cleared.").

As demonstrated below, there is an overwhelming need for additional public safety spectrum, and allocation of an additional 10MHz of spectrum in the 700 MHz Band would allow for use of advanced broadband data transmissions, promote interoperable communications, and serve the public interest. Meeting the critical needs of first responders requires nothing less than establishing a nationwide, IP-based, interoperable communications network. Therefore, we urge the Commission to initiate a rulemaking proceeding to amend Subpart R of Part 90 of its rules for the purpose of allocating an additional 10MHz of spectrum, located below 3 GHz and preferably at 747-752 and 777-782 MHz, for advanced broadband use by federal, state, and local government entities engaged in homeland security, emergency response and related public safety efforts. As part of this effort, we urge the Commission to establish a viable framework that will facilitate long-term allocation of public safety spectrum to develop a nationwide, interoperable communications network for first responders, and create a structure for ongoing analysis of future public safety and homeland security spectrum needs.

**11. THE 24 MHZ CURRENTLY ALLOCATED FOR PUBLIC SAFETY ENTITIES IS INSUFFICIENT**

The Commission has a paramount obligation to support homeland security objectives by ensuring that the nation has a national, integrated public safety communications network that will help **prevent** and **respond to** terrorism incidents within the United States. The White House's *National Strategy for Homeland Security* calls for "a fully integrated national emergency response system that is adaptable enough to deal with any terrorist attack, no matter how unlikely

or catastrophic, as well as all manner of natural disasters” and aims to “ensure that leaders at all levels of government have complete incident awareness and can communicate with and command all appropriate response personnel.” Yet, the current allocation of public safety spectrum is inadequate because it will not support use of next generation, IP-based, data transmission devices and thus may not allow for interoperable communications among public safety personnel. 13/

A. The Pressing Need **of First Responders for Advanced Broadband Services Requires Additional Public Safety Spectrum**

As recognized by the U.S Department of Justice, 14/ a nationwide, interoperable communications network for first responders must include: (1) interoperable communications by and among multi-organizational federal, state, and local public safety entities, while permitting preservation of legacy investments, (2) bandwidth and speed that would enable instant access to mobile operations, voice, data, multi-media, and remote applications, (3) security features that would ensure reliability and immediate availability, and **(4)** a national footprint that would enable deployment of integrated communications, whether based on wireline,

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13/ See Reply Comments of the Public Safety Wireless Network, Spectrum Policy Task Force Report, ET Docket No. 02-135 (filed Feb. 10, 2003) at 6 (“[A]dditional spectrum, beginning with the spectrum already allocated for public services, remains essential to meeting established needs. Merely ‘doing more with less’ spectrum will not provide sufficient channels for interoperability and day-to-day operations, nor will currently accessible bands support new applications such as high-speed data and video capabilities.”).

14/ U.S. Department of Justice Strategic Plan 2001-2006, located at: <http://www.usdoj.gov/jmd/mps/strategic2001-2006/index.htm>.

wireless, or satellite networks and facilities (or a combination thereof). 15/ As described below, our nation's first responders have a critical need **for** a unified broadband network that meets these criteria. Such a nationwide network would support the types of advanced broadband services that would swiftly and securely deliver "anytime, anywhere" multi-media applications to their individual wireless devices. 16/

As a direct result of September 11<sup>th</sup> terrorist attacks, many jurisdictions have recognized the importance of a broadband communications network to further the homeland security effort. The District of Columbia Government ("DC Government"), for example, has developed a plan that would protect and secure the District and its immediate surroundings in the event of a terrorist attack, and has concluded that the current allocation of public safety spectrum is insufficient to meet its pressing need for secure, multi-media and advanced data transmissions. This need is especially acute in the District because

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15/ *Id.* at Appendix A, located at: <http://www.usdoj.gov/jmd/mps/strategic2001-2006/appa.htm>.

16/ We note that the new public safety spectrum allocation at 4.9 GHz is not a favorable solution for the advanced broadband wireless needs of homeland security and public safety entities. *See* The 4.9 GHz Band Transferred from Federal Government Use, *Second Report **h** Order and Further Notice of Proposed Rulemaking*, 17 FCC Rcd 3955 (2002). First, the band does not optimally support mobility – an obvious requirement for first responders. Second, because propagation in this band is inferior, public safety entities may be forced to incur the costs associated with building out a significant number of additional sites. Moreover, even if technical issues were resolved, utilization of this spectrum would likely require entities to purchase replacement equipment for a large number of personnel and thus would not satisfy the Department of Justice's objective to preserve legacy investments.

there are several groups of first responders that would be involved in any crisis situation in the jurisdiction. 17/

The DC Government has identified four critical public safety applications – each of which is necessary to monitor and protect the city and locations immediately outside of the city limits, including the Pentagon and Reagan National Airport. First, the “PROTECT” system will provide chemical and biological alarms, video and other relevant information for the Metro subway system. Second, the District’s emergency medical services department intends to develop a system that will provide bi-directional video links for medical support to emergency medical technicians in the field. Third, the DC Police Department intends to vastly expand its system of remote video monitoring at its command site, while incorporating a system to provide video information to officers on patrol. Finally, the future “CAPWin” system will allow data messaging among new and legacy systems within the region, access to cross-jurisdictional databases, and will serve as an incident command for police, fire, emergency medical personnel, and the District’s department of transportation. These systems will create a regional communications system designed to link elected leaders and top officials across 17

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17/ In addition to the DC police and fire departments, the United States Capitol Police, the United States Park Service, and the United States Secret Service would also be involved in such a situation.

jurisdictions of the Metropolitan Washington Council of Governments within **30** minutes. 18/

Similarly, the U.S. Immigration and Naturalization Service (“INS”) is presently developing the Integrated Surveillance Intelligence System Program (“ISIS”). The objective of the ISIS Program is to tactically and strategically support the U.S. Border Patrol by providing field agents with access to real-time data with which to respond to unauthorized border crossings. When fully deployed, the ISIS Program will integrate three components of the INS’s present surveillance system – Unattended Ground Sensors, Remote Video Surveillance, and Intelligent Computer Aided Detection – into one coordinated, comprehensive surveillance network. ISIS will enable Border Patrol Agents to continuously monitor the U.S. borders twenty-four hours a day in all weather conditions, detect attempted U.S. border crossings, and use next generation technologies to deploy resources as necessary to apprehend intruders.

The current narrowband channelization and proposed use of the **24** MHz of public safety spectrum, while vital to meeting ongoing public safety voice and data needs, will not meet the emerging broadband wireless homeland security needs of the DC Government and the INS, among countless other public agencies. The DC Government concludes that these advanced data applications require wide area coverage user throughput up to 1.2Mbps, and up to **74** Mbps net throughput

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18/ Spencer S. Hsu, *Leaders to Set Emergency Protocol; D.C. Md., Va. Officials to Sign Pact Addressing Weaknesses Exposed Sept. 11*, WASHINGTON POST, **Aug. 5**, 2002. at B1.

for the city and that, at a minimum, the applications would require a 5 MHz uplink, and a 5 MHz downlink, with 30 MHz separation. Yet, the Commission's current public safety allocation does not provide enough spectrum to meet these capabilities, and would not allow the additional spectrum required to be located in the 700 MHz Band.

The 24 MHz of public safety spectrum, channelized into 25 and 150 kHz channels is essential for ongoing narrowband voice and data needs but is insufficient to exploit capabilities provided by the latest broadband wireless technologies. For example, while the current Project 25 ("P25") mobile systems support 400 voice channels within one 5 MHz channel, a broadband wireless system with the same 5 MHz allocation would provide 12 Mbps connectivity to not only the 400 voice channels, but also to a variety of additional services, including access to the FBI's National Crime Information Center database, real-time video from surveillance cameras, and the Internet. This type of broadband capability would provide far greater assistance to the public safety and homeland security communities than the standard 25 and 150 kHz aggregate allocations.

In fact, **NGTT** respectfully submits that Congress and the Commission could have foreseen the insufficiency of designating only 24 MHz for public safety purposes. In 1996, the Public Safety Wireless Advisory Committee to the Commission ("PSWAC") concluded that in order to meet public safety needs, 25 MHz of new public safety spectrum allocations would be needed *within five*



years. 19/ PSWAC further stated that data communication and wireless video needs would grow rapidly, and additional spectrum would be required to support new capabilities and technologies, including high-speed data and video. 20/ Of course, the PSWAC drafters could not have known that public safety service providers would face – and tragically fail – a desperate test of their system capacity five years *to the day* of release of their report. PSWAC also correctly predicted that new systems with increased capabilities and technologies, such as that envisioned by the DC Government, would require additional spectrum – a mere 18 months beyond the five-year period the group originally identified. 21/

APCO also indicates that spectrum capacity is scarce, while users’ demand for spectrum continues to grow. 22/ “The increased use of data communications by public safety agencies is also placing new demands on existing networks. Just as telephone line capacity became a major issue with use of the Internet, so too has public safety radio capacity become an issue as data

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19/ Final Report of the Public Safety Wireless Advisory Committee to the Federal Communications Commission, WT Docket No. 96-86 (filed Sept. 11, 1996) (*“PSWAC Final Report”*) at 3 (emphasis added).

20/ *Id.* at 19-20.

21/ See also Reply Comments of the Statewide Wireless Network New York State Office for Technology, Spectrum Policy Task Force Report, ET Docket No. 02-135 (filed Feb. 27, 2003) at ES-2 (“In terms of establishing priorities in policy making, the Commission is reminded of the PSWAC spectrum recommendations of nearly 7 years ago that remain essentially unmet with useable spectrum.”).

22/ APCO Comments - SPTF Report at 3

transmission becomes an increasingly important part of public safety communications.” 23/

The 24 MHz currently allocated for public safety purposes does not supply the necessary bandwidth for provision of advanced broadband multi-media transmissions. Yet, security of the nation requires a strong wireless infrastructure upon which public safety entities can rely. Given the situation, NGIT urges the Commission to initiate a rulemaking proceeding to allocate an additional 10 MHz of spectrum, located below 3 GHz and preferably at 747-752 and 777-782 MHz, for use by federal, state, and local government entities engaged in homeland security and public safety efforts. As part of this effort, we urge the Commission to establish a viable, long-term framework that will facilitate meaningful allocations of public safety spectrum, including a structure for ongoing analysis of public safety spectrum needs.

**B. Lack of Interoperability Remains a Serious Impediment to Emergency Response**

Problems associated with a lack of interoperability were well documented prior to Congress’s decision to allocate the public safety spectrum and the Commission’s implementation of the legislation. 24/ Yet, almost five years after the Commission designed and implemented the 700 MHz Band plan, public safety

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23/ *Id.*

241 See, e.g., Patrick O’Driscoll, *SOS: Emergency Agencies Often Unable to Talk to Each Other; Non-compatibility Contributed to Loss of Lives on Sept. 11*, USA TODAY, Nov. 20, 2002, at A1 (“O’Driscoll Article”); Thomas Frank, *A Failure to Communicate: Most Cities’ Radio Systems Flawed*, NEWSDAY, Dec. 8, 2002, at A6.

entities within certain jurisdictions are still forced to carry multiple sets of radios in their vehicles. 25/

It has become common knowledge that the lack of interoperability was at the heart of the myriad public safety problems associated with the September 11<sup>th</sup> attacks on the World Trade Center and at the Pentagon. Word of the south tower's collapse, issued on the New York Police Department radio system, did not reach an estimated 120 New York firefighters who perished when the north tower fell. Because the police and fire radios could not connect with each other, the firefighters never received a critical warning from a police helicopter about 20 minutes before the north tower collapsed. 26/ In contrast, joint rescue efforts among Arlington County, Virginia and federal government responders worked much better at the Pentagon, due in large part to previous coordination among these jurisdictions to address interoperability issues. Nevertheless, Arlington County, Virginia reports that "[a]lmost all aspects ... of communications were problematic, from initial notification to tactical operations." 27/ The Arlington County Report documented the fact that radio channels were initially "over saturated" and

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25/ *Id.*

26/ O'Driscoll Article.

27/ *Arlington County After-Action Report on the Response to the September 11 Terrorist Attack on the Pentagon*, Titan Systems Corp., undated, located at [http://www.co.arlington.va.us/fire/edu/about/pdf/after\\_report.pdf](http://www.co.arlington.va.us/fire/edu/about/pdf/after_report.pdf) ("Arlington County Report") at 12.

interoperability problems among jurisdictions and agencies hindered the emergency response efforts on the scene. 28/

These scenarios illustrate that the Commission's goal of interoperability is not yet a reality. 29/ The Commission has correctly recognized that "the inability of public safety agencies to efficiently communicate with one another is a glaring deficiency in present day public safety communications." 30/ As new homeland security and emergency response needs force public safety agencies to grapple with major interoperability problems, the Commission should ensure that additional spectrum for public safety use is available below 3 GHz, preferably in the 700 MHz Band, to address this demand. 31/

### **III. THE 700 MHZ BAND IS THE IDEAL LOCATION FOR MEETING THIS CRITICAL PUBLIC SAFETY NEED**

As explained below, additional public safety spectrum should be located in the 700 MHz Band, near the present 24 MHz of public safety spectrum. Specifically, NGIT submits that allocating additional spectrum in the 700 MHz Band, preferably located at 747-752 and 777-782 MHz, would be consistent with the

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28/ *Id.* at 12-13.

291 "Interoperability signifies the crowning achievement of this proceeding." ~~*First Report & Order*~~, **14** FCC Rcd at 156, ¶ 7.

30/ *Id.* at 156-57.

311 The Chemical and Biological Arms Control Institute has identified five elements of interoperability: coordination and partnerships, spectrum allocation, standards and technology, security, and funding. Comments of the Chemical and Biological Arms Control Institute, Spectrum Policy Task Force Report, ET Docket No. 02-135 (filed Jan. 27, 2003) ("CBACI Comments - SPTF Report").

guidelines outlined by the Commission's Spectrum Policy Task Force ("SPTF"),<sup>32/</sup> and would reduce or eliminate the need for public safety entities to purchase new equipment

NGIT recognizes that Section 337(a) of the Communications Act of 1934, as amended ("the Act") may impede the Commission's ability to quickly allocate these specific bands for public safety use.<sup>33/</sup> However, NGIT notes that Congress may decide to legislate on this issue in light of its recognition of the pressing need for public safety spectrum,<sup>34/</sup> and the Commission has the authority to seek comment on the best potential spectrum bands, as well as any related impediments, in the proposed rulemaking. For example, the Commission could consider the relative merits of allocating additional public safety spectrum in the Lower 700 MHz Band<sup>35/</sup> or the Upper 700 MHz Band.<sup>36/</sup> Most importantly,

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**32/** The mission of the SPTF is to assist the Commission in identifying and evaluating changes in spectrum policy that will increase the public benefits derived from the use of the radio spectrum. *See* <http://www.fcc.gov/sptf/>. On Nov. 15, 2002, the SPTF released its report to the Commission containing its findings and recommendations. Shortly thereafter, the Commission sought comment on the SPTF Report. Commission Seeks Public Comment on Spectrum Policy Task Force Report, *Public Notice*, 17 FCC Rcd 24316 (2002).

**33/** 47 U.S.C. § 337(a).

**34/** *See, e.g.*, H.R. 1425, known as the "HERO Act." Introduced on Mar. 25, 2003, the legislation seeks to expedite the assignment of spectrum for public safety purposes. At this writing, the bill has 23 co-sponsors.

**35/** We note that the Commission has not yet scheduled an auction for television channels 52, 53, 56, 57, and 58 in the Lower 700 MHz Band. Moreover, the Commission has expressly acknowledged that Congress did not explicitly designate the Lower 700 MHz channels for competitive bidding. "While Congress did not specify the amount of spectrum to be reclaimed beyond the Upper 700 MHz Band, *the Commission determined* that all broadcasters could operate with digital

NGIT urges the Commission to expeditiously undertake an effort to identify spectrum that would permit public safety and homeland security entities to cost-effectively develop and use next generation broadband wireless technologies.

**A. Public Safety Spectrum Should Be as Contiguous as Possible**

Additional spectrum for public safety use should be located in close proximity to the present allocation. Such a grouping would comport with the SPTF's preference for "[p]olicies that encourage grouping of spectrum 'neighbors' with technically compatible characteristics."<sup>37/</sup> "The [SPTF] believes that the Commission should consider making spectrum policy decisions encouraging like systems or devices to be grouped in spectrum 'neighborhoods' with like systems."<sup>38/</sup> Moreover, the SPTF recommends that the Commission "rely primarily on its general spectrum management authority to consider whether future allocations

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transmission systems in Channels 2-51 after the [Digital Television] transition, thus allowing Channels 52-59 to be reclaimed for new services." Reallocation and Service Rules for the 698-746 MHz Spectrum Band (Television Channels 52-59), **Report & Order**, 17 FCC Rcd 1022, 1025 ¶ 4 (2002) (emphasis added). In determining that the Lower 700 MHz Band would be "reclaimed for new services" pursuant to competitive bidding, the Commission explicitly recognized (and acted within) its discretion with respect to these channels. NGIT submits that the Commission has the discretion to determine that channels in the Lower 700 MHz Band should be designated for public safety, rather than commercial, use.

<sup>36/</sup> The Commission could also consider use of its authority pursuant to Section 337(c) of the Act to license unused frequencies for public safety services. *See* 47 U.S.C. § 337(c) (establishes the Commission's authority to permit an entity seeking to provide public safety services the ability to use unused frequencies for this purpose).

<sup>371</sup> Spectrum Policy Task Force Report, ET Docket No. 02-135 (Nov. 2002) ("SPTF Report") at 4.

<sup>381</sup> *Id.* at 22.

should be grouped based on mutually-compatible technical characteristics[,]” and asserts that “such a ‘good neighbor’ policy would group future systems or devices by specifying comparable maximum levels of power and compatible interference protection levels.” <sup>39/</sup>

NGIT urges the Commission to seriously consider the SPTFs findings in this regard as they apply to public safety spectrum. The Commission will best meet its goals for consistency and stability in the spectrum planning process by designating additional public safety spectrum in the 700 **MHz** Band.

**B. An Allocation of Additional Public Safety Spectrum in the 700 MHz Band Will Create Efficiencies**

As recognized by the SPTF, when compared with commercial users, public safety spectrum users “typically have different funding mechanisms, are inherently more budget-constrained, and have longer equipment replacement cycles.” <sup>40/</sup> An allocation of additional public safety spectrum in the 700 MHz Band will permit public safety spectrum users to maximize the cycles of equipment presently in use, and will help resolve interoperability issues.

If the additional allocation is in the 700 **MHz** Band, near the current 24 MHz public safety allocation, public safety entities can minimize deployment and equipment upgrade costs. As recently stated by the Chemical and Biological Arms Control Institute (“CBACI”), “[a]ssigning [additional 700 MHz Band] spectrum to public safety communications interoperability will provide a single, national

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<sup>39/</sup> Id.

<sup>40/</sup> Id. at 43.

segment of spectrum for use in establishing interoperable communications to help achieve the fully integrated national emergency response system. Importantly, public safety agencies would have a standard to use as a mark against which they can plan for hardware and system upgrades to ensure them of having equipment capable of interoperable communications.” 41/

Finally, we note that the DC Government estimates that it could be forced to spend upwards of \$47 million in order to upgrade its public safety systems under the present spectrum allocation of 24 MHz. On the other hand, an allocation of an additional 10MHz of public safety spectrum within the 700 MHz Band, located at 747-752 and 777-782 MHz, would reduce its expenditure by over \$26 million. A savings of this magnitude during the present period of significant economic decline in the national economy in general, and the District in particular, is certainly worthy of consideration.

#### IV. AN ADDITIONAL 10MHZ ALLOCATION WILL SERVE THE PUBLIC INTEREST

**An** allocation of an additional 10 MHz of public safety spectrum below 3 GHz will serve the public interest. In announcing his proposal for the Department of Homeland Security, President Bush stated:

The Federal government’s first priority is the protection and defense of the American people. Achieving true homeland security requires technology that guarantees real-time information sharing and improves decision-making. For example, a border patrol agent in Tijuana must be able to communicate with the Customs station in

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41/ CBACI Comments - SPTF Report.



the port of New York and the Coast Guard base in Miami on a real-time basis. A world-class, unified IT structure linking component agencies to the new Department is essential to accomplish these goals. 42/

The public safety community must have the means to develop and implement initiatives designed to improve the efficiency and reliability of time-critical communications related to homeland security and emergency response. In turn, the American public will benefit from well-coordinated and dependable public safety operations. Effective homeland defense will require a nationwide, interoperable communications network for first responders – public safety agencies need spectrum below 3 GHz (preferably in the 700 MHz Band) to build a coast-to-coast, interoperable communications network.

As discussed above, both Congress and the Commission have recognized the benefits associated with granting spectrum for public safety purposes. Congress specifically exempted public safety entities from obtaining spectrum through commercial auctions. 43/ In implementing the public safety band plan, the Commission stated that “[t]his new allocation is the largest ever made for public safety communications and constitutes a significant public benefit.” 44/ In the period since Congress initiated and the Commission completed these critical steps, the terrorist attacks of September 11<sup>th</sup> have sensitized all Americans to federal, state, and local first responders’ critical need for access to communications

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421 President George W. Bush, July 19, 2002.

431 47 U.S.C. § 309(j)(2)(A).

441 *First Report & Order*, 14 FCC Rcd at 164, ¶ 15.

devices that are advanced and reliable, as well as affordable. With input and guidance from the new U.S. Department of Homeland Security, public safety agencies throughout the country are designing wide-ranging plans for protection of their jurisdictions. The proposed initiatives of the DC Government and the INS represent only two among thousands. *All* public safety entities must be able to use next generation wireless devices that can fully exploit wideband technologies, and run on a secure, IP-based network. For this reason, the Commission must formally recognize that the present allocation of **24 MHz**, which, in **1996** was projected to be sufficient for five years, is all the more inadequate in light of our nation's new and very real security requirements. Initiating a petition for rulemaking on these issues is the first step towards relieving these current deficiencies.

**V. ANY ADDITIONAL PUBLIC SAFETY SPECTRUM IN THE 700 MHZ BAND MUST ENABLE USE OF NEXT GENERATION BROADBAND TECHNOLOGIES**

As discussed above, the public safety community has an urgent need for an additional **10 MHz** of public safety spectrum in the **700 MHz** Band, which is an ideal location because it would be contiguous to the present allocation, thereby creating efficiencies. NGIT recognizes that the Commission is currently considering a "consensus proposal" that would allocate an additional **4 MHz** of public safety spectrum in the **700 MHz** Band, 45/ located between **762-764** and **792-794 MHz**, 46/

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**451** See Comments of the Consensus Parties, Improving Public Safety Communications in the **800 MHz** Band, **WT** Docket No. **02-55** (filed Sept. **23, 2002**) at Appendix **A** (among other things, proposing that Nextel's **700 MHz** Guard Band Block **B (4 MHz)** would be reallocated to public safety use).

as part of the 800 MHz Public Safety Interference Proceeding. To the extent that the Commission's resolution of that proceeding results ~~in~~ a new public safety spectrum in the 700 MHz Band, NGIT urges the Commission to set aside at least 4 MHz of this spectrum for new broadband applications, channelized in a manner that would permit homeland security and public safety entities to develop and use advanced broadband communications devices.

NGIT supports the Commission's desire to create a timely, long-term solution to Commercial Mobile Radio Service-public safety interference that minimizes incumbent disruption and provides additional spectrum for post-September 11<sup>th</sup> public safety communications requirements. <sup>46/</sup> In furtherance thereof, we agree with the Public Safety Wireless Network Program's statement that "reorganization contemplated in the chosen plan must take place nationwide and uniformly to be successful."<sup>48/</sup> Likewise, any new "nationwide and uniform" public safety spectrum allocation must meet critical interoperability requirements while permitting federal, state, and local government authorities to deploy advanced wireless high-speed, multi-media applications. Although this allocation

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<sup>46/</sup> *Id.*, see also Service Rules for the 746-764 and 776-794 MHz Bands, and Revisions to Part 27 of the Commission's Rules, *Second Report & Order*, 15 FCC Rcd 5299, 5300 ¶ 1, n.3 ("[T]he 4 megahertz Guard Band includes 762-764 MHz and 792-794 MHz.").

<sup>47/</sup> Improving Public Safety Communications in the 800 MHz Band, *Notice of Proposed Rulemaking*, WT Docket No. 02-55, 17 FCC Rcd 4873, 4876, 4882-83 (2002).

<sup>481</sup> Reply Comments of the Public Safety Wireless Network Program, Improving Public Safety Communications in the 800 MHz Band, WT Docket No. 02-55 (filed Feb. 25, 2003) at 3.

would optimally include 10MHz of additional public safety spectrum, the 4 MHz of “virtually nationwide” spectrum presently assigned to Nextel, 49/ which the Consensus Parties advocate reallocating for public safety use, would further this pressing need. Therefore, should the Commission decide to reallocate Nextel’s 4 MHz Guard Band spectrum for public safety use as part of the 800 MHz Public Safety Interference Proceeding, NGIT urges the Commission to configure these channels for broadband applications

## **VI. CONCLUSION**

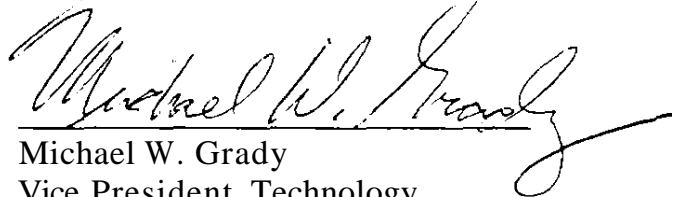
As demonstrated above, there is an overwhelming need for additional public safety spectrum, and allocation of an additional 10 MHz of spectrum below 3 GHz would allow for development of a secure, IP-based network that would support use of next generation, multi-media transmissions, assist with interoperable communications, and serve the public interest. We urge the Commission to expeditiously initiate a rulemaking proceeding to amend Subpart R of Part 90 of its rules for the purpose of allocating an additional 10 MHz of broadband spectrum, located below 3 GHz and preferably in the 700 MHz Band, for wireless use by federal, state, and local government entities engaged in public safety efforts. If the Commission’s resolution of the 800 MHz Public Safety Interference Proceeding results in new 700 MHz public safety spectrum, NGIT urges the Commission to set

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49/ “In 92 of the top 100 cities nationwide, Nextel is the 700 MHz Guard Band licensee for the 4 MHz block. Nextel’s 700 MHz licenses cover 94% of the U.S. population.” Supplemental Comments of the Consensus Parties, Improving Public Safety Communications in the 800 MHz Band, WT Docket No. 02-55 (filed Dec. 24, 2002) at 13, n.19.

aside at least **4 MHz** of this spectrum for broadband applications, channelized in a manner that would permit homeland security and public safety first responders to develop and use advanced broadband communications devices on an interoperable basis

Respectfully submitted,

A handwritten signature in black ink, reading "Michael W. Grady". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

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